

[METHOD OF FABRICATING A THIN FILM TRANSISTOR ARRAY PANELSUBSTRATE]

Abstract

A method of fabricating a thin film transistor array substrate is described. A gate and a scan line electrically connected to the gate are formed on a substrate. A gate insulating layer is formed over the substrate. A patterned channel layer and a patterned ohmic contact layer are formed on the gate insulating layer above the gate. A transparent conductive layer and a metal layer are formed and patterned to define a source/drain region, a data line and a pixel region. A passivation layer exposing the metal layer on the pixel region is formed over the substrate. The metal layer exposed by the passivation layer is removed to expose the transparent conductive layer on the pixel region, using the passivation layer as a photomask, so as to form a pixel electrode. Since the process only needs four photomasks, the process cost can be reduced.